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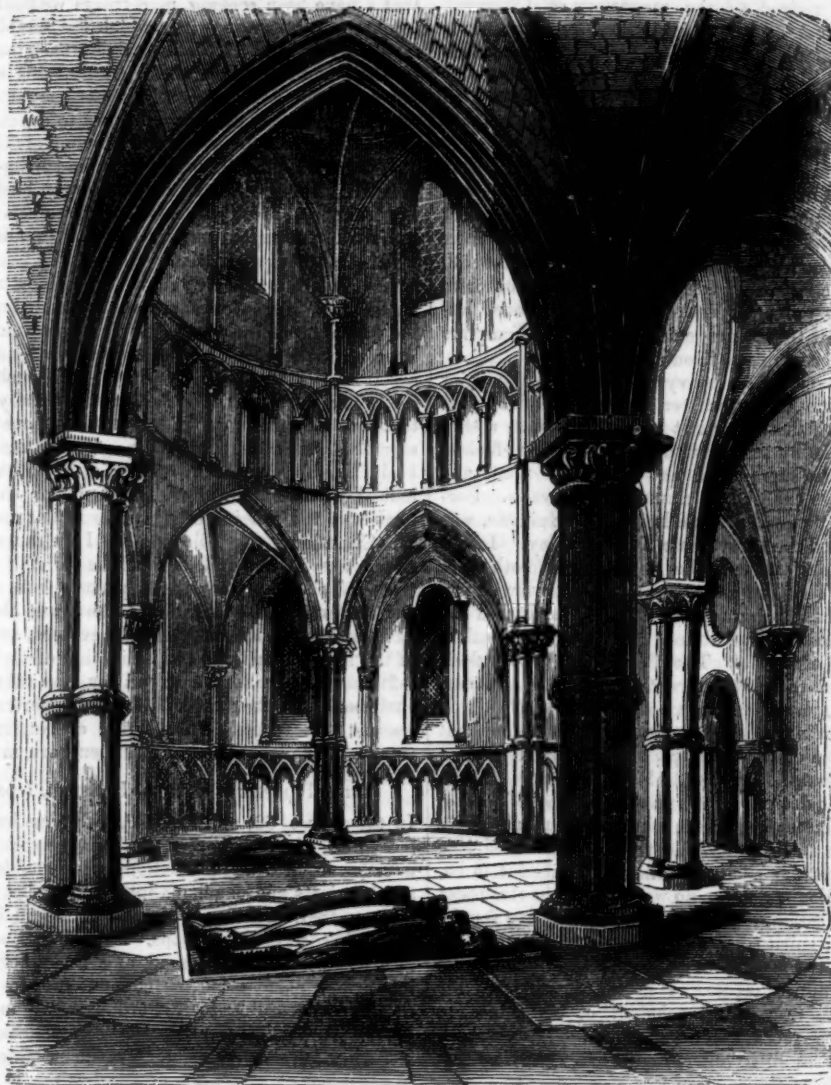
10TH, 1842.

PRICE
ONE PENNY.



THE ROUND CHURCHES OF ENGLAND.

III.



INTERIOR OF THE CIRCULAR PORTION OF THE TEMPLE CHURCH.

THE TEMPLE CHURCH, LONDON.

II.

ROGER DE MOWBRAY and William de Warenne were two of the most highly distinguished warriors of the second crusade. The former, one of the most famous leaders of England, victorious at the celebrated battle of the Standard, marched with King Louis to the Holy Land, fought valorously under the banner of the Templars against the infidels, and on his return made munificent gifts of his estates and possessions to the warriors of the order. Among these were "the manors of Kileby and Withely, divers lands in the island of Axholme, the town of Balshall, in the county of Warwick, and various

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places in Yorkshire." About the same period King Stephen presented the Templars with the advowson of the church of the same manors, and also the manors of Egle and Witham. Queen Matilda likewise granted to them the manor of Covely, or Cowley, in Oxfordshire, two mills in the same county, common of pasture in Shotover Forest, and the church of Shetton, in Rutland. Ralph de Hastings and William de Hastings also gave to the Templars in the same reign, (1152,) lands at Hurst and Wyxham, in Yorkshire, afterwards formed into the preceptory of Temple Hurst. William Asheby granted them the estate whereon the house and church of Temple Bruere were afterwards erected.

We cannot here describe the miserable failure of the

second crusade; but rather glance at the results which followed that event. The master of the temple at Jerusalem having accompanied the French king to Paris, the Templars were left alone to withstand the attacks of an enemy, daily becoming more powerful. The treasurer of the order represented, in a pathetic letter, the melancholy condition of the order, and implored assistance from his brethren in Europe, earnestly beseeching the master to return to them immediately, with all the knights and serving brothers capable of bearing arms. Instead of listening to this urgent request, and proceeding at once to Palestine, Everard des Barres abdicated his authority and retired to the monastery of Clairvaux to spend the rest of his days in penance and mortification. Bernard de Tremelay, a valiant and experienced soldier, succeeded him in his office. Under the conduct of their new leader, the Templars met with brief and partial success. The infidels, who had encamped on the Mount of Olives over against the Temple, were on one occasion defeated with great slaughter, five thousand of their number being left dead upon the plain. But just at this period, when the hopes of the Crusaders began to revive, they had the misfortune to lose their powerful friend and patron, St. Bernard, who died 1153, aged sixty-three. He showed his regard for the order to the last; for even on his death-bed he wrote three letters, stating, that to encourage and protect the Templars was a service acceptable to God and man.

During the same year a heavy calamity befel the order in the destruction of the master and a body of knights at Ascalon, which important city they had rashly attempted to take by storm, without waiting for efficient aid. They were surrounded and slain to a man, and their dead bodies exposed in triumph on the walls. Bertrand de Blanquefort, a noble knight of Guienne, was chosen to succeed the unfortunate De Tremelay. In the encounters which followed, the slaughter on both sides was terrific. The Templars were foremost everywhere, and on one occasion, by a night attack, they forced the famous Nouredin to fly without arms and half-naked from the field of battle. The Pope, grateful for their services, termed these warriors, "the New Maccabees, far-famed and most valiant champions of the Lord."

There was a remarkable similarity of feeling throughout the whole course of this warfare, between the crusaders and the followers of Mahomet. Both were actuated by the most ardent desire to gain possession of the Temple and the holy places; both were willing to endure martyrdom in such a cause. While the religious discipline of the Templars was such as we have described it to be, that of the Mahometans was no way inferior in strictness and self-mortification. Nouredin is said to have fought constantly with spiritual as well as carnal weapons. He lived in the daily exercise of prayer, and of the moral and religious duties inculcated in the Koran; and his whole energies, to the last moment of his life, were exerted for the recovery of Jerusalem. The Arabian writers relate that all frivolous and profane conversation was banished from the camp of the Moslems, and the intervals of action were employed in prayer, meditation, and the study of the Koran. While the Templars styled themselves the "avengers of Jesus Christ," the "ministers of God for the punishment of the infidels," and while the Pope and the fathers of the church declared that to them was intrusted the office of blotting out unbelievers from the earth, and that in "fighting for Christ the kingdom of Christ was acquired:" the followers of Mahomet were likewise encouraged by the declaration of their prophet that, "a drop of blood shed in the cause of God, a night spent in arms, is of more avail than two months spent in fasting and prayer." The famous caliph Ababeker, writing to the Arabian tribes said, "This is to inform you that I send the true believers into Syria to take it out of the hands of the infidels, and I would have you to know, that fighting for

religion is an act of obedience to God." The promise to him who fell in battle among the Moslems was, that his sins should be forgiven him in the day of judgment; his wounds should be resplendent as vermillion, and odoriferous as musk, and the loss of limbs should be supplied by the wings of angels and cherubim.

When called to the conflict the Templars exhibited the utmost daring and intrepidity, and were described as "lions in war" and "lambs in the convent;" so also the Moslems fought with fiery enthusiasm, and Nouredin himself while combating like the meanest of his soldiers was known to exclaim, "Alas! it is now a long time that I have been seeking martyrdom without being able to obtain it." The spirit in which the Arabian warriors met death is illustrated by the dying exclamation of one of their number when he embraced his mother and sister for the last time: "It is not the fading pleasure of this world that has prompted me to devote my life in the cause of religion, I seek the favour of God and his apostle, and I have been told that the spirits of the martyrs will be lodged in the crops of green birds who taste the fruits and drink the waters of paradise. Farewell; we shall meet again among the groves and fountains which God has prepared for the elect."

By the letters of Bertrand de Blanquefort addressed to Louis VII., king of France, we find how hopeless were the prospects of the Templars, and how vain the continued struggle in which they were engaged, notwithstanding the brilliant successes which occasionally rewarded their prowess. It is indeed a melancholy reflection, that so vast an amount of human life should have been sacrificed in endeavouring to gain possession of the Holy Land. On the part of the Moslems there was indeed consistency with their creed, for theirs is emphatically the religion of the sword; but on the part of the Christians, the followers of Him at whose birth peace was proclaimed, and whose parting legacy was "peace," there was a gross departure from the precepts and the example of their divine Lord, and they appear to have suffered in their continued reverses, and at length, in the ignominious end and extinction of their order, the infliction of that sentence: "They who take the sword, shall perish by the sword." In 1167, Bertrand de Blanquefort was succeeded by Philip of Naplous, the first master of the Temple who had been born in Palestine.

THE TEMPLE CHURCH, LONDON, (concluded.)

In the year 1162, and in 1172, a famous bull was promulgated, which exempted the Templars from the ordinary ecclesiastical jurisdiction, and enabled them to admit priests and chaplains into their order, and appoint them to their churches without installation, induction, or any reference to the bishops. At this period the fraternity began to erect splendid and magnificent churches in various parts of Christendom, and to this period, therefore, according to Mr. Addison, we may, with the greatest probability, refer the commencement of the Temple Church of London. As the building of churches in those days was a work of much time, it seems quite reasonable to suppose that the earlier part of this edifice was commenced shortly after the period referred to, since the portion called "The Round," was ready for consecration in 1185, at the arrival of the patriarch Heraclius in England, accompanied by the Grand Master of the Temple. It was dedicated to the Virgin Mary, and an indulgence of fifty days was granted to those yearly seeking it. Matthew Paris speaks of it as "an edifice worthy to be seen." The oblong portion of the church was not consecrated until Ascension Day, 1240, in the presence of the king and much of the nobility of the kingdom, who, on the same day, that is to say, the day of the Ascension, after the solemnities of the consecration had been completed, royally feasted at a most magnificent banquet, prepared at the expense of the Hospitallers. At a period yet earlier than that to

which the building of this church can be assigned, the Templars had a place of religious worship in Holborn, near Southampton Buildings, and Stowe tells us that, about a century before his time, part of the first Temple Church was discovered on pulling down some old houses, and it was found to have been built of Caen stone, and in a circular form. From the same chronicler we learn that the New Temple, as he calls that of London, was often made a "storehouse for men's treasure."

The same fact is noted by Matthew Paris, who says that, in 1232, Hubert de Burgh, earl of Kent, being prisoner in the tower of London, the king was informed that he had much treasure laid up in the Temple, under the custody of the Templars. Whereupon he sent for the master of the Temple, and examined him strictly; who confessed that money was delivered to him and his brethren to be kept, but he knew not how much there was of it. The king demanded to have the same delivered; but it was answered that the money being committed unto their trust, could not be delivered without the licence of him who committed it to ecclesiastical protection. Subsequently the king sent his treasurer and other officers to make the same demand of Hubert, the owner of the treasure, who immediately requested the knights to deliver up the whole of it; and thus the king appropriated the money, vessels of gold and silver, and precious stones belonging to the earl.

Edward I. was guilty of a like injustice, for, in 1283, he went to the Temple, and, calling for the Keeper of the Treasure-house, as if he intended to see his mother's jewels that were laid up there to be safely kept, he entered the house, broke open the coffers of different persons and took away about one thousand pounds.

After the apprehension of the Templars in 1308, the Temple fell into various hands. In 1313 Edward II. gave the whole place and houses so named to Aimer de Valence, earl of Pembroke, together with the tenements, rents, and appurtenances, belonging thereto. Hugh Spencer afterwards usurped it for a time, and it was finally assigned to the prior and brethren of the order of St. John, or the Knights Hospitallers, in 1339. The Knights soon afterward leased the Temple and its appurtenances for a rent of ten pounds per annum, to a society of students of the common laws of England, who, finding their numbers increasing, formed themselves, in the reign of Richard II., into two societies, known as those of the Inner Temple, and Middle Temple. In the reign of Henry VIII. the order of St. John was dissolved, and the Temple again became the property of the crown, but the students of the law still held it on a lease, "defending one Christian from another, as the old Templars did Christians from Pagans." James I. granted the whole of the buildings to Sir Julius Cæsar, Knight, the Benchers, and others of the Temple, and their assigns for ever, "for the reception, lodging, and education of the professors and students of the laws of this realm," at a rent of ten pounds annually, from each society.

The church narrowly escaped the flames in 1666, and was beautified, and a curious wainscot-screen set up in 1682. The south-west part was newly built with stone in 1695. In 1706 the church was whitewashed, gilt, and painted within, and the pillars of the round tower wainscotted. A new battlement and buttresses were added to the south side, and other parts of the exterior were repaired. The figures of the Knights Templars also were "cleaned and painted," and the iron work inclosing them was painted and gilt. The east end was beautified in 1707, and again with the north side repaired in 1736, and in 1811. In 1827 the whole south side of the church, externally, and the lower part of the circular portion, internally, underwent a restoration, under the able direction of Sir Robert Smirke, and has since been subjected to various alterations and repairs.

On first entering the circular portion of the church, the visitor is much struck with the marvellous significance

of the design, which characterises every feature of the building. The object of the architect appears to have been to exhibit a circle of twelve columns twice over. The coincidence of these two circular ranges of pillars with the Druidical circles is apt to strike even an inexperienced observer. But there are other remarkable circumstances—the junction of the six interior pillars with the twelve exterior produce exact triangles throughout the whole circumference. The same number, twelve, mysteriously subdivided into other numbers, appears to pervade the whole of this circular temple.

Three pointed arches form the entrance from the round to the oblong portion of the building, the central one being supported upon beautiful columns of Purbeck marble. Passing through one of these arches, the visitor enters the lofty and elegant structure beyond, which presents one of the finest examples of the early pointed style of architecture. The pillars which support the pointed arches of the roof are of solid marble, and the clustered columns which adorn the wall are of Purbeck and Caen stone. By the clustered columns the side walls are divided into five compartments on either side, which are each filled up with a triple lancet-headed window of graceful form, and richly ornamented. The windows at the east end are similar in form to those just mentioned, but the central one is considerably larger. By the side of the archway communicating with the round is a small Norman doorway, opening upon a dark winding-staircase which leads to the summit of the round tower, and also conducts to the penitential cell, where refractory and disobedient Templars were subjected to solitary confinement. This cell is only four feet six inches long, and two feet six inches wide, with two small loopholes in the wall to admit light and air. Here Walter le Bachelier, Knight, grand preceptor of Ireland, met with a miserable death from the rigour and severity of his imprisonment which he had incurred by disobedience to his superior, the master of the Temple. On the opposite side of the church, a corresponding doorway and staircase formerly led to the chapel of St. Anne, opening into the cloisters, but this chapel was removed during the repairs of 1827. In the round portion of the Temple Church are the famous monuments of mail-clad knights, supposed to be those of associates of the Temple, a class of men not actually admitted into the holy vows and habits of the order, but yet received into a kind of spiritual connexion with the Templars. These figures are cross-legged, in token that they had assumed the cross; but they are not clothed in the long mantle of the Templars, in which the knights of that order were always buried, and are always represented on their tombs. The monuments are arranged in two groups, on the floor of the area of the round. The northern group consists of five recumbent figures of knights in chain-armour, with shields of the Norman form, differing very much in length. The figures are cut in high relief out of solid blocks of stone, which at the same time form the plinths on which they rest. The southern group consists of four similar figures and a coffin-shaped stone. So many conjectures have been advanced respecting the persons these figures were intended to represent that we will not attempt to follow them. Whoever they may have been, their connexion with the order of Templars, and the situation occupied by their tombs, have been enough to render these effigies most interesting, both in ancient and modern times. Gough mentions a ridiculous instance of the veneration in which they were held, when he states, that a Hertfordshire baronet, wishing to adorn a parochial chapel newly erected by him, made application to the Society of Benchers for some of the "cross-legged knights" to be appropriated to that purpose. This unaccountable request the lawyers had the good sense to refuse compliance with; being naturally reluctant to part with those curious remnants of ancient times.

UMBRELLAS AND PARASOLS.



THE CHINESE UMBRELLA.

THE distinction which, in England, is made between an *umbrella* and a *parasol*, is one dependent chiefly on the changeable nature of our climate. The object for which these convenient contrivances were invented, was to shield the wearer from the scorching heat of the sun in warm climates, an appropriation which is expressed by the compound term *para-sol*. In the rainy seasons of the East persons do not think of going forth from their homes, so that the use of the umbrella as a rain-shield is seldom thought of.

Many circumstances concur in showing that the use of sun-shields (for so we may term parasols) has not only prevailed to a great extent in the East, but that the honour of holding this shield over the monarch has generally belonged to a great officer of state. There are passages in the Bible, relating to a "shade defending from the sun," which are believed to point to the use of umbrellas in the East in very early times; and indeed such a shade has been used in almost all the countries of the East for so long a time that we may well believe this to have been the case. At Persepolis, in Persia, are some ancient sculptures believed to be as old as the time of Alexander the Great; and on one of these is represented a chief or king, attended by two servants, one of whom holds a fly-flapper and the other an umbrella, the latter over the head of the royal personage. At Takht-i-Bostan are other sculptures, less ancient than those of Persepolis, but executed when Europe was in a state of semi-barbarism; and in these is represented a king witnessing a boar-hunt, attended by an umbrella bearer.

To pass from ancient to more modern times, we find that the umbrella is considered, in every country of the East except China and Turkey, a privilege of royalty, the excepted countries exhibiting them in various ranks of society. In China the dresses worn in wet weather are such as are calculated to shield the wearer from the rain; while the broad-brimmed hats serve much the purpose of a sun-shield. The umbrella is thus rather an ornament than an article of use. It is customary in Chinese drawings, to see ladies attended by servants holding umbrellas over their heads. Loubere, who went to Siam as envoy from the king of France, describes the use of umbrellas as being governed by curious regulations. Those umbrellas which resemble the European form, are used principally by the officers of state; while

those which have several tiers in height, as if two or more umbrellas were fixed on one stick, are reserved for the king alone. The umbrellas which the king presents to his nobles and the ambassadors from foreign countries, vary in their value as marks of the king's favour, according to the hangings or trimmings affixed to their edges. In Ava, a country adjacent to Siam, the king designates himself, among other titles, as "Lord of the ebbing and flowing of the sea, king of the white elephant, and lord of the twenty-four umbrellas;" this last title, although very ludicrous to our view, is supposed to relate to twenty-four states or provinces combined under the rule of the king, the umbrella being an especial royal emblem in Ava.

Sir John Malcolm states that in India the *chattrapati*, or "lord of the umbrella," is a title held as a peculiar mark of honour by one of the chief officers in the Mahratta states. The same high authority is also of opinion that the term *Satrap*, the old Persian title for a prince or governor of a province, is derived from this word; and that both in India and in Persia, the "lord of the umbrella" has for ages been a distinguished officer of the court. In the Mohammedan countries of the north of Africa, the use of the umbrella is as conspicuous as in Asia. Ali Bey, describing the entrance of the emperor of Morocco into Fez, says:—

The retinue of the emperor was composed of a troop of from fifteen to twenty men on horseback; about a hundred steps behind them came the emperor, who was mounted on a mule, with an officer bearing his umbrella, who rode by his side also on a mule. The umbrella is a distinguishing sign of the sovereign of Morocco. Nobody but himself, his sons, and his brothers, dare to make use of it.

In another work relating to the same country, it is stated that on one occasion as the emperor, Muley Zeerit, was going "out of the palace gate, the violence of the wind broke his parasol; which was interpreted as an omen of the approaching end of his reign. The accident made a great impression on the old monarch himself, which, however, he endeavoured to hide, and called for another parasol."

Italy was probably the first country in Europe where the use of this article prevailed. Its sunny clime would render an "ombrello," or sun-shade, most agreeable. Both the terms "parasole" and "ombrello" were used in that country to express a sun-shade, and the use of a similar instrument as a shield from rain seems to have been an afterthought. The French name "parapluie" and the German term "regenschirm," express the rain-shielding use of the instrument, as exactly as "parasol" does that of a "sun-shield;" but we have no name in English equally consistent, for "umbrella" (from "ombrello") means simply a "little shade."

The period when umbrellas were first used in England is not exactly known. In the *Statistical Account of Glasgow* it is stated:—

About the year 1781 or 1782 the late Mr. John Jamieson, returning from Paris, brought an umbrella with him, which was the first seen in this city. The Doctor, who was a man of humour, took great pleasure in relating to me how he was stared at with his umbrella. For a number of years there were few used in Glasgow, and these are made of glazed cotton cloth.

With respect to Edinburgh, Creech says:—

In 1763 there was no such thing known or used as an umbrella; but an eminent surgeon of Edinburgh, who had occasion to walk a good deal in the course of his business, used one about the year 1780; and in 1783 umbrellas were much used, and continue to be so, and many umbrella warehouses are opened, and a considerable trade carried on in this article.

An impression has at times existed that Jonas Hanway introduced the use of umbrellas into England, about the middle of the last century; but Gay, in 1712, wrote a poem in which occur the following lines:—

Good housewives all the winter's rage despise,
Defended by the riding-hood's disguise;

Or underneath th' umbrella's oily shed,
Safe through the wet in clinking pattens tread.
Let Persian dames th' umbrella's ribs display
To guard their beauties from the sunny ray;
Or sweating slaves support their shady load,
When Eastern monarchs show their state abroad;
Britain in winter only knows its aid,
To guard from chilly show'rs the walking maid.

From which it would seem that in 1712 umbrellas were used in England, but not sun-shades or parasols. On the other hand there is a passage in Davenant's *Plays* which seems to indicate the opposite use of the umbrella in his day. A Frenchman, satirizing England in the presence of a Londoner, says:—

Sure your ancestors contrived your narrow streets in the days of wheelbarrows, before those greater engines, carts, were invented; is your climate so hot that as you walk you need *umbrellas* of tiles to intercept the sun?

It appears from various considerations that though Jonas Hanway was the first *man* who used an umbrella in London, yet that they were used by women for nearly a century before his time.

To trace the changing fashions of these useful instruments is no part of our object, nor can we enter into any detail as to the manufacture; but there are a few points connected with the mechanical improvement of the instrument which deserve a word.

In umbrella frames of the usual construction, the ends of the whalebone are connected to the top of the umbrella by means of a *ring* of wire; and the ends of the stretchers or straight wires are in like manner jointed to the sliding-tube. This mode of construction, though cheap and easy, is defective in principle; for the axes upon which these parts turn, instead of being straight lines, are arcs of a circle, by which excessive and unequal friction is occasioned, and the instrument is destroyed much sooner than the excellence of its materials would warrant. Another defect in the common mode of construction is, that as the stretchers are connected to the middle of each whalebone by pins which perforate the latter, the whalebone becomes necessarily weakened in consequence, and the hole enlarges until the whalebone breaks.

Many of these defects are removed by a contrivance by Mr. Cauly, for which a patent has been taken out. In this construction each whalebone is connected to the top by separate straight axes, in such a manner that they cannot shift out of their places. The stretchers are connected in the same way to the sliding-tube, and are also jointed to the whalebones without perforating the latter. These arrangements may perhaps be understood from the annexed cuts. In Fig. 1 *a* is the upper end of one of



Fig. 1.

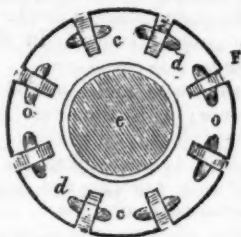


Fig. 2.

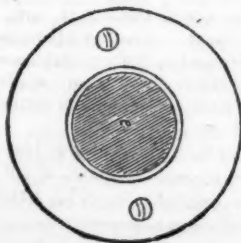


Fig. 3.

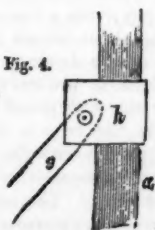


Fig. 4.

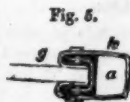


Fig. 5.

the whalebones, having a ferule *b* on it, with a pin *c* passing through its end. Fig. 2 is a plan of the brass plate, in which *d* is a plate to which the whalebones are jointed; *c* is the aperture through which the umbrella stick passes; *c c* denote the pins or axes passing through the joints, and lying imbedded in cavities in the plate, wherein they are confined by the screws in the top brass plate. Fig. 3 is the top brass plate just alluded to. Fig. 4 *a* is one of the eight radiating whalebones; *b* is a ferule made by the doubling of sheet brass around it, to receive the pin or axis of the stretcher *g*, without impairing the whalebone. In fig. 5 some of the parts here described are seen in different positions; but as the same letters of reference apply to the same parts, the application will be easily understood.

A new form of umbrella has been patented by Mr. Deacon; in which the end of the ribs have dovetailed caps, the dovetails being formed so as to enter recesses or notches in a cap, wherein they are confined by a plate screwed down upon the whole. Instead of solid sticks, Mr. Deacon makes them of metal; they are hollow and are covered with varnished cloth, or with an ornamental coating of papier maché. These coverings to the metal are intended to obviate the effects of oxidation.

Mr. J. C. Hancock, of Birmingham, has taken out a patent for making light elastic sticks for umbrellas, in the following manner. Willow rods of a suitable length have the pith contained in them bored out, and in its place are put metallic wires or rods. The wooden exteriors are then reduced, by planes or other suitable tools, to the required shape; they are afterwards coloured and varnished, to give them the appearance of whalebone. One end of the rods is capped with metal tips; the other end has the wires extending beyond the wooden cases, which are flattened and drilled to receive the wires that fasten them to the handles, and forms the joint whereon they turn.

A SCHOLAR that hath been all his life collecting books, will find in his library, at last, a great deal of rubbish; and as his taste alters, and his judgment improves, he will throw out a great many as trash and lumber, which, it may be, he once valued and paid dear for, and replace them with such as are more solid and useful. Just so should we deal with our understandings; look over the furniture of the mind, separate the chaff from the wheat, which are generally received into it together; and take as much pains to forget what we ought not to have learned, as to retain what we ought not to forget.—MASON.

HYMN,

BY JAMES MONTGOMERY.

O THOU! who wast in Bethlehem born;
The man of sorrows and of scorn,
Jesus, the Sinner's Friend;
O Thou, enthron'd in filial right,
Above all creature-power and might;
Whose kingdom shall extend,
Till earth, like heaven, Thy name shall fill,
And men, like angels, do thy will;—
Thou! whom I love, but cannot see,
My Lord! my God! look down on me;
My low affections raise;
The spirit of liberty impart,
Enlarge my soul, inflame my heart,
And, while I spread Thy praise,
Shine on my path, in mercy shine,
Prosper my work, and make it Thine!

CONTENTMENT AND RESIGNATION.—It is recorded of Fenelon, that when his library was on fire, "God be praised," said he, "that it is not the habitation of some poor man." How peculiarly placid must the mind of Dr. Watts have been, when, in the prospect of death, he said, "I bless God I can lie down with comfort at night, unsolicitous whether I awake in this world or another."

AGRICULTURISTS NOT IMPROVERS.

It is curious, that many to whom improvements in agriculture are traced, were not professional farmers, but men engaged in other pursuits, who, with cultivated minds, turned their attention also to this subject. Thus, the first English treatise on husbandry was written by Sir A. Fitzherbert, Judge of the Common Pleas in 1534, and from this, Harte, Canon of Windsor, in his *Essays on Agriculture*, dates the revival of agriculture in England. Tusser, the author of *Five Hundred Points of Husbandry*, published in 1562, was a scholar of Eton, and afterwards of Trinity Hall, Cambridge, before he applied to farming and literature. Sir R. Weston, who was ambassador from England to the Elector Palatine and King of Bohemia in 1619, introduced clover into England; his *Discourse on the Husbandry of Brabant and Flanders* was published in 1645, and is said to mark the dawn of the vast improvements which have since been effected in Britain. Evelyn, who is considered one of the greatest encouragers of improvements that had ever appeared, was, as is well known, a gentleman attached to literature and science, and often employed in the public service. He published, in 1664, his *Sylva, or a Discourse on Forest-trees and the Propagation of Timber in his Majesty's Dominions*, with many other works, which had a great influence in the improvement of the country. Jethro Tull, who introduced the drill husbandry, and published his work on horse-hoeing husbandry in 1731, was bred a barrister; he first made experiments on his own estate, and then practised farming.—Dr. ROYLE.

FRIENDSHIP.

THOUGH the fair field of life be o'ershadowed with sorrows,
And the groans of calamity burst on our ears;
Still the heart has its joys, while from friendship it borrows
A balm for its pangs, a relief for its tears.

In the balance of destiny, anguish and pleasure
Are equally pois'd; but where friendship prevails,
This equality ceases, and joy, without measure,
Gives new sway to the beam, and thus varies the scales.—
CAUNTER.

THE first machine of Newcomen required the most unmitigated attention on the part of the individual who unceasingly opened and closed certain stopcocks, first for the introduction of the steam into the cylinder, and then for injecting the cold shower for its condensation. It happened on one occasion, that the person so employed was a boy named Henry Potter. His young companions at their sports uttered cries of delight, which vexed him beyond endurance. He was all impatience to join in their sport, but his required duties did not allow him half a minute's absence. His anxiety excited his ingenuity, and led him to observe relations he had never before thought of. Of the two stopcocks, the one required to be opened at the moment that the beam (which Newcomen first and so usefully introduced into his machines) terminated the descending oscillation, and required to be closed precisely at the termination of the opposite one. The management of the other stopcock was precisely the reverse. The positions, then, of the beam and of the stopcocks, had a necessary dependence upon each other. Potter seized upon this fact; he perceived that the beam might serve to impart to the other parts of the machine all the required movements; and on the spur of the moment he realized his conceptions. He attached a number of cords to the stopcocks; some to the one end of the handle, and some to the other, and these he attached to the most suitable parts of the beam, so that in ascending it pulled one set of the cords, and in descending the other, and so effectually, that all the work of his hand was entirely superseded. For the first time, the steam-engine went by itself; and now no other workman was seen near it but the fireman, who from time to time fed the furnace under the boiler.

For the cords of young Potter, the engineers soon substituted rigid vertical rods, which were fixed to the beam, and armed with small pegs which either pressed from above downwards, or from below upwards, as required; and thus turned the different stopcocks and valves. These rods themselves have since been replaced by other combinations; but, however humbling the avowal, all these expedients are nothing more than simple modifications of a contrivance suggested to a child by his desire to join in the gambols of his youthful companions.—*ARAGO'S Life of Watt.*

THE MARKET GARDENS OF HAMMERSMITH AND FULHAM.

THE parishes of Hammersmith and Fulham may be called the great fruit and kitchen garden north of the Thames for the supply of the London market. It appears from Domesday book that this district was in a high state of cultivation at the early period when that valuable survey was made, and it is supposed to have furnished London with corn, and such vegetables and fruit as were then known and in use. But it was not before the time of Charles the Second, that the regular weekly supply could be forwarded to the metropolis, which, since that period has been so abundant. Though gardening as a branch of commerce may be in general considered as of small importance, yet in the neighbourhood of London, from its constant and immense consumption of vegetables and fruit, it has become a profitable and important pursuit.

Mr. Faulkner, in his interesting history of these parishes, gives much information respecting the modes of culture adopted in these gardens. Some of our readers may perhaps glean a valuable hint from the following particulars.

The soil of these parishes is well adapted to the culture of vegetables; being in general, either a strong staple mould, on sand or gravel, which improves most highly on working; or when near the river, a light rich sandy loam or gravel, and that in a very small proportion, which although strong is rather sour and bad for working.

The fruit grounds were first stocked with apples, pears, cherries, plums, and walnuts, which are called the upper crop; and secondly, with raspberries, gooseberries, currants, and all such fruits, shrubs, and herbs, as will sustain the wet with the least injury, and this is called the under crop. This mode, which has prevailed a long time, is, however, getting out of use, and in new plantations the gardeners prefer to place the fruit trees in rows, with an open space left for the under crop, by which means the grounds are more open to the sun and air, and can be varied by the occasional introduction of vegetables. The cultivation of fruit is very partial compared with that of vegetables, which, as the most profitable crop, in general gains ground as the old orchards are cleared away. The mode of manuring and managing the grounds allotted to vegetables is particularly attended to in these parishes. Manure, which is worthless if applied in a crude state, is thrown into square holes, and water added to assist fermentation.

The mode of cropping the ground in these parishes is as follows: in January they sow on hot beds lettuce, with a sprinkling of cabbage-seed for plants, and so from February onwards; at the same time raising great quantities of small salads under glass, for supply in succession; and from about that time till February early peas on banks sloped for that purpose to the south. About twenty acres are sown with radishes, which is the first crop of consequence; with these are sown carrots, onions, or parsley, which is called the under crop. In February the first land, as cleared from the winter, is planted successively with cabbage and lettuces, to be succeeded by Prussian peas, or spinach, or it is sown with peas and onions. The quantity of beans sown per acre is about four bushels, which are dibbed in by women with great rapidity along a line stretched across the ridges, each row being about fifteen inches apart. The usual times of sowing are January and February; the general average produce is probably about thirty bushels an acre, but from the myriads of small black insects which infest the plants, the crop is rendered extremely precarious. The peas grown with the intent of being gathered green, and sent in their pods to market, succeed clover, corn, or any other crop. The land appropriated to their reception is generally a dry loamy soil, and manure is usually ploughed in during the months of January and February; after this

the land is harrowed, and is then fit for the seed, which is put into drills fifteen inches apart, mostly made across, but occasionally along the ridges, and the seed is covered with the hoe. White peas are the only sort raised for the purpose of being gathered green, and of these there are several sorts, as the hotspur, the early charlton, the marrowfat, and Prussian blue; the quantity sown is about three bushels per acre; the produce varies from ten to fifty sacks, and is sometimes sold at from 7l. to 9l. per acre, the buyer taking every risk and expense of gathering upon himself. The average produce of gray peas is about thirty bushels per acre; such of the peas as are suffered to ripen are partly used for soup and peas-puddings, the residue is bought by the miller and ground with inferior wheat into meal, which is subsequently mixed with other flour and made into what is called wheaten bread.

The rotation of crops varies however with the facilities for procuring manure. The farming gardeners at Hammersmith usually raise a succession of crops as follows:—First, cabbages; secondly, either potatoes or turnips, and thirdly wheat every two years; in this case, though there is no fallow, their land is kept as clean, and nearly as rich as a good kitchen garden. Some have found the following rotation valuable:—they manure heavily a clover lay, for, first, potatoes; second, wheat; and third, clover; and successively repeat the same rotation. The potatoe crop is the clearing one; the roots are taken up with pronged forks, the haulm got off, and used in littering the farm-yards. The rubbish is then harrowed out, raked together, and carried away, and in this state the land is sown with wheat, which is covered by a thin ploughing, that being all the tillage it receives. Cauliflowers, brocoli, carrots, and parsnips, are not so much cultivated as other vegetables, on account of their occupying the ground too long; onions, which succeed in this soil remarkably well, for the same reason would hardly be much sown were it not for the method of drawing them in September and October, whilst green, to be succeeded by coleworts, turnips and spinach, and again by coleworts. Those grounds sown with peas are frequently trenched, and manured well in June and July, and succeeded by lettuce plants, raised under glass, and these are esteemed to be the earliest and best known at the market. When the ground is stocked with cabbages, one row in seven is cleared in May and June, and then planted with cucumbers, which spread themselves under the cabbages, and succeed them. These have been known to be succeeded in favourable years by two crops of coleworts or green cabbages, which are calculated to be fit for market before the ensuing February; thus making four complete crops within the year. The mode of half-cropping, by throwing spinach among cabbages, or otherwise, is now generally exploded, it being found the best plan that the under crop should have the entire benefit of the ground during a certain time. It would scarcely be possible to enumerate the variety of succession as adopted in the crops, according to the seasons or accidents. But it is certain by these methods and by the favourable circumstance of a constant demand, that four complete crops of vegetables are often obtained; and never less, upon an average, than three.

The mode of conveying this vast produce to market creates habits among a class of people which are little known by the rest of the community; and although a gardener's life appears to be one of the most primitive and natural description, yet, passed near London it is as artificial as any known to our forced state of society.

Covent Garden Market is held three days in the week, and as vegetables ought to be eaten as soon as possible after they are gathered, it is the business of the gardener to gather one day and to sell the next, hence the intervening night is the period of conveyance. All the roads round London therefore are crowded with market carts

during the night, so that they may reach the markets by three or four o'clock, when the dealers attend, and these markets are over by six or seven; the shops of the retailers are then supplied, chiefly by the aid of Irish porters. Every gardener has his market cart, which he loads at sun-set, and they depart in the evening according to the distance from London; each cart is accompanied by a driver, and also by a person to sell, who having disposed of the load returns with the vehicle in the morning. In the strawberry season, hundreds of women are employed to carry that delicate fruit to market on their heads, and their industry in performing this task is wonderful. They consist for the most part of Shropshire and Welsh girls, who carry baskets of this fruit weighing from forty to fifty pounds, and make two turns in the day from Hammersmith, for which they are well-paid. After the fruit season is over, the same women find employment in gathering and marketing vegetables, and in the month of September they return to their homes with the produce of their hard-earned savings to support themselves during the ensuing winter.

EASY LESSONS IN CHESS.

VII.

IN our last lesson we played through a game illustrative of the King's Bishop's opening. This method of play is sound, but not capable of much variety, and therefore, seldom attempted. On the present occasion we propose to conduct the student through a game illustrative of the King's Knight's opening, a method which is highly and deservedly esteemed among chess-players. It is a perfectly sound opening, and leads to greater variety than any other method of play.

The following game is by Greco, whose merits as a player and writer have been noticed in the *Saturday Magazine*, Vol. XVIII., p. 189. In this game the attack is very brilliant, and quite in the style of this master. It is, however, a general complaint against Greco's games that the brilliant play is on one side only. We are disposed to think that such must necessarily be the case, not only with Greco's, but with the games of all brilliant players, because such games if properly opposed must cease to be brilliant. The feeble play of the adversary serves as the foil whereby such games become brilliant. The more equally players are matched, the less becomes the opportunity for the exhibition of daring and brilliant stratagems;—they are seen through and defeated long before they are matured.

The young chess-student will therefore bear in mind that Greco's games, as specimens of brilliant and ingenious attack, are admirable and worthy of attentive study, because they reveal many of the most refined resources of the game, the study of which will be of great practical advantage; but he must not expect to find a model for chess-play on both sides: with a little attention, however, he will derive benefit from the faults committed on one side as well as from the skill displayed on the other.

KING'S KNIGHT'S GAME.

WHITE.

1. K. P. two squares.
2. K. Kt. to K. B. third square.

BLACK.

1. K. P. two squares.

Your second move gives the name to this opening. Your K. Kt. attacks the adversary's King's Pawn, which he must defend; and he has several methods of doing so, viz.,—1. Q. P. one square, but this is objectionable because it confines the range of that most useful piece, the K. B. 2. Q. to K. second square defends the K. P., but the move is liable to the same objection of confining the K. B. 3. K. B. to Q. third square is very objectionable, because it confines the Q. P., and consequently the Q. B. and otherwise obstructs his game. 4. K. B. P. one square *appears* to defend the K. P. but does not really do so, as, for example,

K. Kt. takes K. P.
Q. to K. R. 5th., checking.
Q. takes K. P., checking.
Q. takes K. R.

K. B. P. one square.
K. B. P. takes Kt.
K. Kt. P. one square.
Q. to K. second square.

White ought to win easily.

One method of defending the K. P. from the attack of your K. Kt. yet remains to be noticed, and that is,

2. Q. Kt. to Q. B. third square.

This is Black's best move. The Q. Kt. not only defends the K. P. but is in many other respects most usefully placed.

3. K. B. to Q. B. fourth square. 3. K. B. to Q. B. fourth square.

If Black had played any other move than Q. Kt. to Q. B. third square at his second move you would have proceeded differently according to circumstances: but now your best third move is to get out the K. B. to his best and most attacking square. Your adversary plays a similar move for a similar reason.

4. Q. B. P. one square. 4. Q. to K. second square.

Your fourth move is very generally played in order to the moving out of Q. P. two squares at the fifth move. Black moves out his Q. in order to prevent the advance of your Q. P. It has been discovered, however, that this move does not prevent the advance of your Q. P. two squares*. Black's fourth move may, therefore, be either Q. P. one square, or K. Kt. to K. B. third square; but we retain, in the present instance, the move of Q. to K. 2nd.

5. Castles. 5. Q. P. one square.
6. Q. P. two squares. 6. K. B. to Q. Kt. third

Black's sixth move is much to be censured. He ought to have taken the Pawn with his K. P., and then have retreated with his Bishop.

7. Q. B. to K. Kt. fifth square. 7. K. B. P. one square.

It is seldom good play to move K. B. P. one square, and in the present instance Black ought to have covered the attack on his Q. by playing K. Kt. to K. B. third square.

8. Q. B. to K. R. fourth square. 8. K. Kt. P. two squares.

You now get your Q. B. to strengthen your King's side, while it acts as a useful attacking piece. Black's advance of the Kt. Pawn is injudicious, because by the skilful sacrifice of your K. Kt. you get a powerful attack.

9. K. Kt. takes K. Kt. Pawn. 9. Pawn takes K. Kt.
10. Q. to K. R. fifth square, chkg. 10. K. to Q. second square.
11. Q. B. takes Pawn.

Black has a choice of moves, but whatever he may do, the game cannot be further successfully defended. Let us now see the very skilful way in which the checkmate is effected.

12. K. B. to K. sixth square, chkg. 11. Q. to K. Kt. second square.
13. Q. to K. eighth square, chkg. 12. K. takes B.
14. Q. P. one square, checkmating. 13. K. Kt. interposes.

It was of no consequence which piece Black interposed at his thirteenth move; the mate was forced.

Having studied this game with attention, the young

* This discovery was made a few years ago when the "Queen's Pawn Two Game," was so great a favourite. The circumstance which led to it is curious, and will be understood by comparing the following opening of the Queen's Pawn Two Game with that of the King's Knight's Game.

WHITE.

1. K. P. two squares.
2. K. Kt. to K. B. third square.
3. Q. P. two squares.
4. K. B. to Q. B. fourth square.
5. Q. B. P. one square.
6. Castles.

Instead of beginning the game thus, if you open the King's Knight's Game in the following order, the position will be precisely the same in both cases.

1. K. P. two squares.
2. K. Kt. to K. B. third square.
3. K. B. to Q. B. fourth square.
4. Q. B. P. one square.
5. Q. P. two squares.
6. Castles.

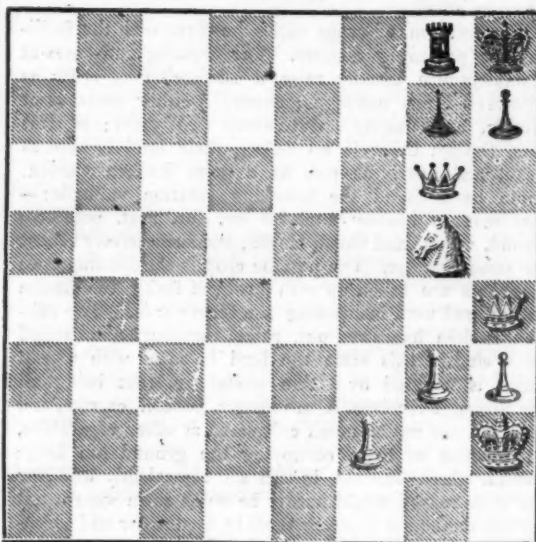
BLACK.

1. K. P. two squares.
2. Q. Kt. to Q. B. third square.
3. Pawn takes Pawn.
4. K. B. to Q. B. fourth square.
5. Q. to K. second.

student is directed to two problems, of which the solutions are purposely withheld. He must endeavour to effect the mate in the prescribed number of moves, and in strict accordance with the laws of the game. It is very desirable also not to touch the pieces until the student has formed the solution in his own mind; and, indeed, it is a very useful exercise to effect the solution without the use of the board and men, by simply studying the diagram itself. We shall hereafter give the key to these solutions, but we may remark that if the student solve them without our aid he will be amply compensated for his trouble.

PROBLEM I. White to move first, and to give checkmate in two moves.

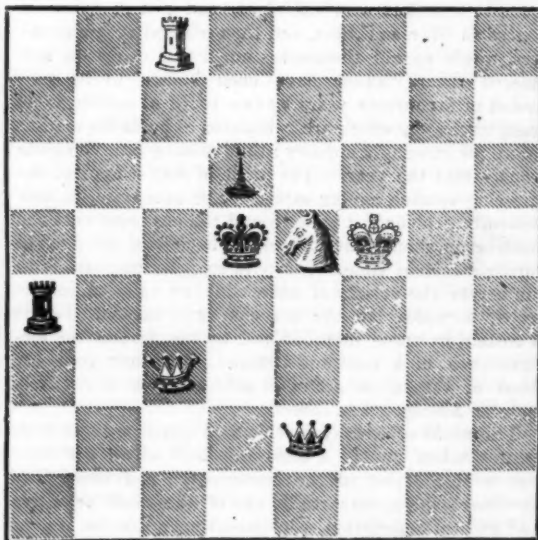
BLACK



WHITE.

PROBLEM II. White to move first, and to give checkmate in two moves.

BLACK



WHITE.

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